



Your amazing parents decided to start a college fund for you when you were born. They invested \$2500.00 in an account that would earn 9% interest every year provided they made no withdrawals for 18 years. The interest is added to the balance at the end of each year.

How much interest did this account earn the first year?

Write an exponential function that will give the amount the investment is worth  $p(t)$  at the end of any number of years  $(t)$ .

Use your function to find the value of the investment (to the nearest cent) after 6 years, 12 years, and 18 years.

During which 6-year period did the investment gain the most? Why?

**\*\*BONUS\*\***

How would the result of the investment change, after 18 years, if at the beginning of each year (except year 1) your parents would have deposited an additional \$100 to the account?

